

EnerCube

Containerized Battery Energy Storage System

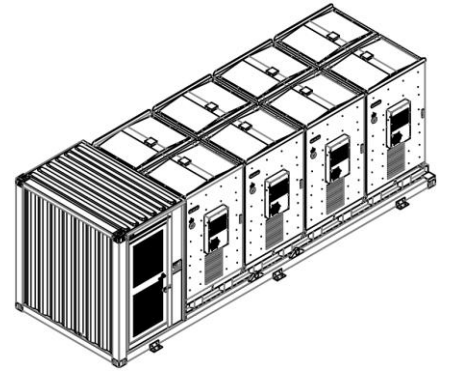
PRODUCT OVERVIEW

EnerCube adopts All-in-One design and integrates battery modules, intelligent Power Conversion System (PCS), Power Distribution Unit (PDU), Fire Suppression System (FSS), Temperature Control System (TCS), and intelligent Monitoring System (IMS) by one-stop in the container of international standard size, which is easy to lift and transfer, well meet the requirements of ocean and highway transportation.

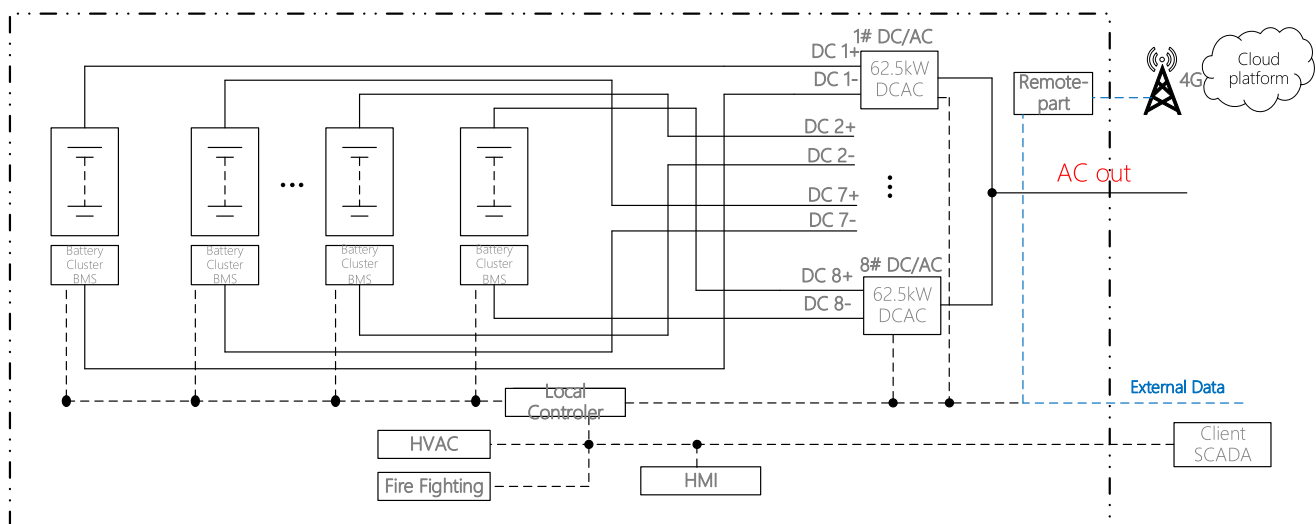
EnerCube is equipped with EV-safety high-performance LFP batteries, and the battery cluster consists of a series of highly reliable automotive process modules.

Battery Management System (BMS) automatically control and monitor the entire battery system in real time, and it also has

functions such as battery balance management and fault self-diagnosis to ensure the safe and smooth operation of the module. At the same time, the Energy Management System (EMS) is responsible for the overall scheduling and the intelligent interconnection with cloud platforms, enabling 24-hour cloud data analysis and intelligent operation and maintenance.



TOPOLOGY



PRODUCT FEATURES

- Containers of international standard sizes are convenient for integrated transportation.
- Recycled EV LFP batteries, high efficiency & security and low cost.
- All-in-One design and integrated PCS, FSS, Local control system and HVAC to improve on-site installation.
- Series PCS are used to improve the operating efficiency and utilization of the system.
- Automatic gas extinguishing system and combustible gas detection system are adopted to ensure active safety of system.
- Apply to peak-load shifting and smoothing the fluctuations of PV and wind power generation and can also be used for EV charging station for energy storage.
- Support integrating with PV and diesel generators.

PRODUCT PARAMETERS

| Item | EnerCube2.0-1200 |
|-----------------------------|--|
| ◉DC Input Parameters | |
| Cell type | LFP-220Ah |
| Module model | 1P12S |
| System configuration | 8*1P216S |
| Battery capacity(BOL) | 1216.512kWh |
| Battery voltage range | 604.8V ~ 777.6V |
| ◉AC Output Parameters | |
| Rated output power | 500kW |
| Max. output power | 500kW |
| Rated voltage | AC400, 3P3W+PE |
| Rated grid frequency | 50Hz±5Hz/60Hz±5Hz |
| Max. output current | 720A |
| Power factor | Listed: 0.8~1 leading or lagging (Load-depend) Actual: 0.1~1 leading or lagging (Load-depend) |
| THD | < 3% |
| Overload capacity | 110%, 10 mins; 120%, 60s |
| ◉General parameters | |
| Container dimension (W*D*H) | 7458×2438×2640mm |
| Weight | 23000kg |
| Isolation transformer | No |
| Protection grade | Battery room: IP54, PCS room: IP34 |

| | |
|--------------------------------------|--|
| Container anti-corrosion grade | C3 |
| Operating temperature 【1】 | -20℃ ~ 55℃ |
| Relative humidity | 0-95% (non-condensing) |
| Max. running altitude 【2】 | 2000m |
| Cooling type of battery room | Battery room: HVAC, PCS room: forced air cooling |
| Noise | ≤75dB |
| System efficiency | ≥88% |
| Design Life | 10years+ |
| Fire fighting design | FAS & FM200 |
| Communication interface and protocol | Ethernet, Modbus TCP/IP |
| Design standard | G99, IEC 62933, IEC62619, GB_T36558 |

● Notes:

【1】 The system will be derated when the ambient temperature exceeds 45℃.

【2】 The system will be derated when the altitude is between 2000 and 3000m.

System Layout

